

CLAIMS:

1. A battery comprising two half-cells which are in an electrochemical contact with one another through an electrically neutral alkaline ionic conductor, wherein one of said half-cells comprises an anode and the other half-cell comprises a cathode, whereby electrical discharge is accomplished via reduction of the cathode and oxidation of the anode, and whereby said cathode includes silver (per)manganate salt and hydroxide.
2. The battery according to Claim 1 whereby said silver (per)manganate is in the form of AgMnO_4 .
3. The battery according to Claim 1 whereby said silver (per)manganate is in the form of $\text{Ag}(\text{MnO}_4)_2$.
4. The battery according to Claim 1 whereby said silver (per)manganate is formed from the mixture of silver salt, and a (per)manganate salt other than silver (per)manganate.
5. The battery according to Claim 4 whereby said silver salt is AgNO_3 , or AgNO_2 .
6. The battery according to Claim 4 whereby said silver salt is a silver halide, silver halate, silver perhalate, or silver halite.
7. The battery according to Claim 4 whereby said silver salt contains carbon, from the salt list of silver acetate, silver carbonate, silver fulminate, silver lactate, silver acetylide, silver levunilate, silver oxalate, silver palimate, silver cyanate, silver thiocyanate, silver benzoate, silver propionate, silver salicyate, silver stearate or silver tartrate.
8. The battery according to Claim 4 whereby said silver salt is chosen from the list of silver tetraborate, silver sulfate, silver thiosulfate, silver dithionate, silver selenate, silver selenide, silver

telluride, silver tungstate, silver azide, silver phosphate, silver orthophosphate or silver pyrophosphate.

9. The battery according to Claim 4 whereby said silver salt is a silver oxide.

10. The battery according to Claim 6 whereby said silver oxide, is Ag_2O or AgOH .

11. The battery according to Claim 4 whereby said silver salt is a silver peroxide.

12. The battery according to Claim 4 whereby said silver peroxide is AgO

13. The battery according to Claim 12 whereby said silver peroxide is Ag_2O_2 or $\text{Ag}(\text{OH})_2$.

14. The battery according to Claim 4 whereby said (per)manganate salt other than silver is a manganate salt.

15. The battery according to Claim 14 whereby said manganate salt is a K_2MnO_4 .

16. The battery according to Claim 14 whereby said manganate salt is a BaMnO_4 .

17. The battery according to Claim 14 whereby said manganate salt is MgMnO_4 , CaMnO_4 , SrMnO_4 , K_2MnO_4 , Na_2MnO_4 , Li_2MnO_4 , Rb_2MnO_4 , Cs_2MnO_4 , ammonium manganate, or a tetra alkyl ammonium manganate.

18. The battery according to Claim 4 whereby said (per)manganate salt other than silver is a permanganate salt.

19. The battery according to Claim 18 whereby said permanganate salt is a KMnO_4 .

20. The battery according to Claim 18 whereby said permanganate salt is NaMnO_4 , LiMnO_4 , RbMnO_4 , CsMnO_4 , ammonium permanganate, or a tetra alkyl ammonium permanganate.

21. The battery according to Claim 4 whereby said mixture also includes an oxidizing agent.

22. The battery according to Claim 7 whereby said oxidizing agent is a hypochlorite salt.

23. The battery according to Claim 7 whereby said oxidizing agent is a peroxydisulfate salt.

24. The battery according to Claim 1 whereby said silver permanganate comprises at least 1% of the weight of the cathode mass.

25. The battery according to Claim 1 whereby said silver permanganate comprises at least 5% of the weight of the cathode mass.

26. The battery according to Claim 1 whereby said silver permanganate comprises at least 25% of the weight of the cathode mass.

27. The battery according to Claim 1 whereby said hydroxide comprises a solid salt.

28. The battery according to Claim 1 whereby said hydroxide salt is potassium hydroxide.

29. The battery according to Claim 27 whereby said hydroxide salt comprises at least 1% of the weight of the cathode mass.

30. The battery according to Claim 27 whereby said hydroxide salt comprises at least 5% of the weight of the cathode mass.

31. The battery according to Claim 27 whereby said hydroxide salt comprises at least 25% of the weight of the cathode mass.